INDEX TO VOLUME 30

- Adrenergic drugs and intraocular pressure: suppression of ocular hypertension induced by water loading,
- responsiveness in vitro of iris dilator muscle from rabbits with experimental induced thyroid disorders, 13
- Age, changes in chemical composition of anterior lens capsules of cataractous human eyes as a function of, 155
- Ageing, isolation, polypeptide composition and changes associated with. (Human lens fiber cell plasma membranes. I), 659
- Age-related changes in the stability of lens alpha crystallin containing complexes. (Immunochemical studies on lens protein-protein complexes III), 537

AGUIRRE, G. (see BUYUKMIHCI, N.), 575

Albert, D. M. (see Lessell, S.), 731

Alcala, J., Valentine, J. and Maisel, H., Human lens fiber cell plasma membranes. I. Isolation, polypeptide composition and changes associated with ageing, 659

ALCALA, J. (see NASSER, S.), 109

Alpha-crystallin, blue-fluorescent calf, pH-dependent photoreactions of, 649

- -----beta-gamma crystallin complex formation, on the mechanism of. (Immunochemical studies on lens protein complexes II), 527

Amino acids, neutral, hexoses and potassum, transport into capillaries isolated from bovine retina, 593 Amphibian lens, the calcium metabolism of, 379

———, the zinc metabolism of, 333

Anderson, D. H., Fisher, S. K., Erickson, P. A. and Tabor, G. A., Rod and cone disc shedding in the rhesus monkey retina: a quantitative study, 559

ANDERSON, D. H. (see TABOR, G. A.), 545

Angiotensin I converting enzyme (kininase II) in ocular tissues, 299

Anion and cation effects on δ -crystallin synthesis in the cultured embryonic chick lens and in a reticulocyte lysate, 351

Anterior ciliary arteries, the contribution of blood flow to the anterior segment in the primate eye by,

- —— lens capsules of cataractous human eyes, changes in chemical composition of, as a function of age, 155
- —— uvea, rabbit, in vitro studies on the rate of $PGF_{2\alpha}$ accumulation by. (The kinetics and energy dependence of prostaglandin transport processes I), 175

— of the rabbit eye, localization of autologous antiperoxidase antibodies in, 253

Antibodies, antiperoxidase, autologous, localization in the anterior uvea of the rabbit eye, 253

Antigens, ocular, XI. Common antigenic determinants in the soluble retina fractions of man, monkey, pig and calf, 391

Antiperoxidase antibodies, autologous, localization in the anterior uvea of the rabbit eye, 253

Anuran adopation to altered environments, systemic and ocular mechanisms of; effects on electrolyte and urea concentrations in plasma and aqueous humor, 221

Aqueous humor and plasma, effects on electrolyte and urea concentrations in; systemic and ocular mechanisms of anuran adaptation to altered environments, 221

Assay, quantitative, of phagocytosis by retinal pigment epithelium: an organ culture model, 719

ATLASIK, B., STEPIEN, K. and WILCZOK, T., Interaction of drugs with ocular melanin in vitro, 325

Atropine and metaproterenol pilocarpine administration, stereological investigation of their effects on the human lacrimal gland, 291

AUGUSTEYN, R. C. (see McNamara, M. K.), 319

—, —— (see Rogers, K. M.), 427

AWASTHI, Y. C., SANETO, R. P. and SRIVASTAVA, S. K., Purification and properties of bovine lens glutathione S-transferase, 29

BALDWIN, G. F. and Bentley, P. J., The calcium metabolism of the amphibian lens, 379

——, —— ——, —— The zinc metabolism of the amphibian lens, 333

Barry, D. T., Costello, M. J. and Gruner, Sol M., Freeze-fracture study of vesicle disruption and inversion in isolated bovine rod outer segment disks, 501

Basal cell membrane, increased surface area of; early morphological alteration of the pigment epithelium in streptozotocin-induced diabetes, 631

BASU, P. K. (see Rosenstock, T.), 719

----, R. (see Rosenstock, T.), 719

BEATTY, D. D. (see TSIN, A. T. C.), 143

BECKER, B. (see KRUPIN, T.), 345

Bellon, B. (see Hirsch, M.), 253

Bentley, P. J. (see Baldwin, G. F.), 333, 379

Benzalkonium chloride, increased corneal permeability induced by the dual effects of transient tear film acidification and exposure to, 203

Beta-crystallin and δ -crystallin families, an immunochemical study of the different proteins in, 519—crystallins of the adult chicken lens: relatedness of the polypeptides and their aggregates, 679

Bettelheim, F. A. (see Loewenstein, M. A.), 315

Betz, A. L. and Goldstein, G. W., Transport of hexoses, potassium and neutral amino acids into capillaries isolated from bovine retina, 593

Bicarbonate and CO₂, influence on rabbit corneal transendothelial bicarbonate fluxes, 641

VIERI, J. G. (see CARTER-DAWSON, L.), 261

Binding, specific of fluorescein labelled serum retinol-binding protein to its cell surface receptor in isolated, purified bovine pigment epithelial cells, 489

Biochemical aspects of the visual process. XLI. Degradation of rhodopsin by a lysosomal fraction of retinal pigment epithelium, 183

Bioelectric and transport properties of post-mortem lenses, 19

Biosynthesis and partial characterization of tear film glycoproteins, incorporation of radioactive precursors by human lacrimal gland explants in vitro, 411

BITO, L. Z. (see CAMRAS, C. B.), 41

—, — (see Dibenedetto, F. E.), 175

Bleckmann, H. and Kresse, H., Glycoaminoglycan metabolism of cultured cornea cells derived from bovine and human stroma and from bovine epithelium, 469

——, ———, ——, Studies on the glycosaminoglycan metabolism of cultured fibroblasts from human keratoconus corneas, 215

——retinal barrier disruption in experimental diabetic rats: an electron microscopic study, 401

Blue-fluorescent calf α-crystallin, pH-dependent photoreactions of, 649

BONTING, S. L. (see REGAN, C. M.), 183

Bovine and human stroma and bovine epithelium, glycosaminoglycan metabolism of cultured cornea cells derived from, 469

—— rabbit retina, localization and characterization of dopamine receptors within two synaptosome fractions of, 699

----- lens carbonic anhydrases: purification and properties, 277

- — urea-soluble protein, regional differences in the composition of, 109

--- pigment epithelial cells, isolated, purified, specific binding of fluorescein labelled serum retinol-binding protein to its cell surface receptor in, <math>489

retina, transport of hexoses, potassium and neutral amino acids into capillaries isolated from, 593
 retinal pigment epithelial cells, purification by dissociation in calcium free buffers and centrifugation in Ficoll density gradients followed by 'recovery' in tissue culture, 481

— rod outer segment disks, freeze-fracture study of vesicle disruption and inversion in, 501

Bradley, R. (see Nasser, S.), 109

Brahma, S. K., Isofocusing and immunoelectrophoretic studies of soluble eye lens proteins from regenerated and normally-developed *Xenopus laevis*, 269

BRINKMAN, C. J. J., TOLHUIZEN, E. F. J. and BROEKHUYSE, R. M., Ocular antigens. XI. Common antigenic determinants in the soluble retina fractions of man, monkey, pig and calf, 391

BROEKHUYSE, R. M. and KUHLMANN, E. D., Lens membranes. XI. Some properties of human lens main intrinsic protein (MIP) and its enzymatic conversion into a 22000 dalton polypeptide, 305

BROEKHUYSE, R. M. (see BRINKMAN, C. J. J.), 391

Bromberg, B. B., Systemic and ocular mechanisms of anuran adaptation to altered environments: effects on electrolyte and urea concentrations in plasma and aqueous humor, 221

Brown, S. I. (see Chao, C-C. W.), 411

Bullfrog, adult, visual pigments and vitamins A in, 143

— retina, oxygen transport in, 117

Bunt, A. H. (see Saari, J. C.), 231

Butler, J. M., Powell, D. and Unger, W. G., Substance P levels in normal and sensorily denervated rabbit eyes, 311

Buyukmihci, N., Aguirre, G. and Marshall, J., Retinal degenerations in the dog. II. Development of the retina in rod-cone dysplasia, 575

Calcium metabolism of the amphibian lens, 379

-----free media, influence on the electrical properties of the isolated toad lens, 193

Calotes versicolor, lizard, studies on the water soluble lens proteins of, I. Fractionation and molecular weight determination, 739

Camras, C. B. and Bito, L. Z., The pathophysiological effects of nitrogen mustard on the rabbit eye.

I. The biphasic intraocular pressure response and the role of prostaglandins, 41

Candia, O. A., The influence of calcium-free media on the electrical properties of the isolated toad lens, 193

Capillaries isolated from bovine retina, transport of hexoses, potassium and neutral amino acids into, 593 Caputo, S. J. (see Farnsworth, P. N.), 611

Carbonic anhydrases of bovine lens, purification and properties, 277

CARPER, D. (see Keller, N.), 203

Carter-Dawson, L., Tanaka, M., Kuwabara, T. and Bieri, J. G., Early corneal changes in vitamin A deficient rates, 261

Cation and anion effects of δ -crystallin synthesis in the cultured embryonic chick lens and in a reticulocyte lysate, 351

Calf α-crystallin, blue-fluorescent, pH-dependent photoreactions of, 649

——, man, monkey and pig, common antigenic determinants in the soluble retina fractions of. (Ocular antigens XI), 391

Cat retina, histogenesis of, 439

----, retinal blood flow to tapetal and pigmented fundus in, 245

 ${\it Cats, siamese and domestic, with unilateral lid suture, histochemical studies on the inferior oblique muscle of, 619}$

Cataract, Philly mouse, cytological study of, 79

—, —, hereditary, differential synthesis and degradation of protein in, 69

---, -----, hereditary, a new model of, 59

Cataractous human eyes, changes in chemical composition of anterior lens capsules of, as a function of age, 155

Cataracts, a group of labile rat lens proteins involved in. (Characterization of lens proteins III), 455—, senile nuclear, 3,3'-dityrosine in the proteins of, 319

Cells, bovine pigment epithelial, isolated, purified, specific binding of fluorescein labelled serum retinol-binding protein to its cell surface receptor in, 489

glycosaminoglycan metabolism of, 469
——, embryonic chick lens, influence of m⁷GpppN mRNA caps on lens protein synthesis and on mRNA binding to ribosomes in a homologous lens translation system derived from, 747

—, retinal pigment epithelial, bovine, purification by dissociation in calcium free buffers and centrifugation in Ficoll density gradients followed by 'recovery' in tissue culture, 481

CHANCE, B. (see NISSEN, P.), 691

Chao, C-C. W., Vergnes, J-P., Freeman, I. L. and Brown, S. I., Biosynthesis and partial characterization of tear film glycoproteins, incorporation of radioactive precursors by human lacrimal gland explants in vitro, 411

Chick lens cells, embryonic, influence of m⁷GpppN mRNA caps on lens protein synthesis and on mRNA binding to ribosomes in a homologous lens translation system derived from 747

——, cultured embryonic, anion and cation effects on δ -crystallin synthesis in, and in a reticulocyte lysate, 351

— , embryonic, two tryptic peptide differences among the subunits of σ -crystallin of, 361

Chicken, adult, lens, β -crystallins of; relatedness of the polypeptides and their aggregates, 679

 $Choline, \ radiolabeled, \ accumulation \ and \ incorporation \ into \ cultured \ rabbit \ lenses; \ evidence \ for \ a \ choline \ transport \ system, \ 1$

Ciliary arteries, anterior, the contribution of blood flow to the anterior segment in the primate eye by, 167

---- bodies, glucose uptake by normal and dystrophic rat retinas and, 709

—— process of rabbits with acute and chronic serum sickness, immune complex deposition in, 371

CINTRON, C. (see PECZON, B. D.), 155

 ${
m CO_2}$ and bicarbonate, influence on rabbit corneal transendothelial bicarbonate fluxes, 641

Cone and rod disc shedding in light-entrained tree squirrels, 545

____ __ the rhesus monkey retina: a quantitative study, 559

CONNOLLY, R. J. (see WILCOX, L. M.), 167

Cornea cells, cultured, derived from bovine and human stroma and from bovine epithelium, glycosaminoglycan metabolism of, 469

—, rabbit, relation of intracellular levels and redox state of glutathione to endothelial function in, 511

Corneal changes, early, in vitamin A deficient rats, 261

endothelium, oxidized glutathione in, 607

- epithelium and endothelium, altered redox states in; HADH fluorescence in rat and rabbit ocular tissue, 691
- permeability, increased, induced by the dual effects of transient tear film acidification and exposure to benzalkonium chloride, 203

transendothelial bicarbonate fluxes, rabbit, influence of bicarbonate and CO_2 on, 641

Corneas, keratoconus, human, studies on the glycosaminoglycan metabolism of cultured fibroblasts from,

COSTELLO, M. J. (see BARRY, D. T.), 501

CRAFT, J. L. (see LESSELL, S.), 731

Cytological study of philly mouse cataract, 79

Cytoskeletal component, major, of the human lens: microtubules, 611

DAEMEN, F. J. M. (see REGAN, C. M.), 183

DE GRIP, W. J. (see REGAN, C. M.), 183

Degradation of rhodopsin by a lysosomal fraction of retinal pigment epithelium. (Biochemical aspects of the visual process XLI), 183

DELAMERE, N. A. (see DUNCAN, G.), 105

Delta-crystallin of the embryonic chick lens, two tryptic peptide differences among the subunits of, 361 synthesis in the cultured embryonic chick lens and in a reticulocyte lysate, anion and cation effects on, 351

Diabetes, streptozotocin-induced, early morphological alteration of the pigment epithelium in; increased surface area of the basal cell membrane, 631

Diabetic rats, experimental, disruption of blood-retinal barrier in; an electron microscopic study, 401 DIAZ, G., ORZALESI, N. and RIVA, F. T., Stereological investigation on the effects of metaproterenol pilocarpine and atropine administration on the human lacrimal gland, 291

DIBENEDETTO, F. E. and BITO, L. Z., The kinetics and energy dependence of prostaglandin transport processes. I. In vitro studies on the rate of PGF₂₂ accumulation by the rabbit anterior uvea, 175

Disc shedding, rod and cone, in light-entrained tree squirrels, 545

the rhesus monkey retina: a quantitative study, 559

Disks, bovine rod outer segment, freeze-fracture study of vesicle disruption and inversion in, 501 3,3'-Dityrosine in the proteins of senile nuclear cataracts, 319

Dog, retinal degenerations in, II. Development of the retina in rod-cone dysplasia, 575

Dopamine receptors, localization and characterization within two synaptosome fractions of rabbit and bovine retina, 699

- in the rat retina, identification of, 431

DRUET, P. (see HIRSCH, M.), 253

Drugs, interaction with ocular melanin in vitro, 325

DUNCAN, G., DELAMERE, N. A., PATERSON, C. A. and NEVILLE, M. C., Contribution of an electrogenic pump to the electrical characteristics of frog lens membranes, 105

DUTTON, J. J. (see KRUPIN, T.), 345

Electrical properties of the isolated toad lens, the influence of calcium-free media on, 193

Electrogenic pump, contribution to the electrical characteristics of frog lens membranes, 105

Electron microscopic study of disruption of blood-retinal barrier in experimental diabetic rats, 401 Embryonic chick lens, anion and cation effects on δ -crystallin synthesis in, and in a reticulocyte lysate,

351

-, two tryptic peptide differences among the subunits of δ-crystallin of, 361 cells, influence of m⁷GpppN mRNA caps on lens protein synthesis and on mRNA binding

to ribosomes in a homologous lens translation system derived from, 747 Endothelial function in the rabbit cornea, relation of intracellular levels and redox state of glutathione

to, 511

Endothelium, corneal, oxidized glutathione in, 607

and epithelium, corneal, altered redox states in; NADH fluorescence in rat and rabbit ocular tissue,

Energy dependence and kinetics of prostaglandin transport processes. I. In vitro studies on the rate of PGF₂α accumulation by the rabbit anterior uvea, 175

Enzyme, angiotensin I converting, (kininase II), in ocular tissues, 299

Enzymes, proteolytic, of the human lens, 427

Epithelial cells, bovine pigment, isolated, purified, specific binding of fluorescein labelled serum retinol-binding protein to its cell surface receptor in, 489

, retinal pigment, bovine, purification by dissociation in calcium free buffers and centrifugation in Ficoll density gradients followed by "recovery" in tissue culture, 481

Epithelial cells (cont.)

—, bovine, glycosaminoglycan metabolism of cultured cornea cells derived from bovine and human stroma and from, 469

—— and endothelium, corneal, altered redox states in; NADH fluorescence in rat and rabbit ocular tissue, 691

----, isolated mammalian pigment, glucose transport in, 53

——, pigment, in streptozotocin-induced diabetes, early morphological alteration of; increased surface area of the basal cell membrane, 631

——, retinal pigment, degradation of rhodopsin by a lysosomal fraction of. (Biochemical aspects of the visual process XLI), 183

----, -----, quantitative assay of phagocytosis by; an organ culture model, 719

---, ----, reversible opening of, by hypercapnia, 129

ERICKSON, P. A. (see ANDERSON, D. H.), 559

Eye lens proteins, soluble, from regenerated and normally developed Xenopus laevis, isofocusing and immunoelectrophoretic studies of, 269

—, primate, the contribution of blood flow by the anterior ciliary arteries to the anterior segment in, 167

----, rabbit, localization of autologous antiperoxidase antibodies in the anterior uvea of, 253

——, rabbit, the pathophysiological effects of nitrogen mustard on, I. The biphasic intraocular pressure response and the role of prostaglandins, 41

Eyes, human, cataractous, changes in chemical composition of anterior lens capsules of, as a function of age, 155

, rabbit, normal and sensorily denervated, substance P levels in, 311

—, —, Δ⁹-tetrahydrocannibol transport in, 345

Farnsworth, P. N., Shyne, S. E., Caputo, S. J., Fasano, A. V. and Spector, A., Microtubules: a major cytoskeletal component of the human lens, 611

FASANO, A. V. (see FARNSWORTH, P. N.), 611

Fiber cell plasma membranes, human lens, I. Isolation, polypeptide composition and changes associated with ageing, 659

Fibroblasts, cultured, from human keratoconus corneas, studies on the glycosaminoglycan metabolism of, 215

FISCHBARG, J. (see NISSEN, P.), 691

Fish lenses, pressure induced turbidity in, 315

FISHER, S. K. (see ANDERSON, D. H.), 559

—, — (see Tabor, G. A.), 545

Fluorescein labelled serum retinol-binding protein, specific binding to its cell surface receptor in isolated, purified bovine pigment epithelial cells, 489

Fluorescence, NADH, in rat and rabbit ocular tissue; altered redox states in corneal epithelium and endothelium, 691

Fredericks, W. R. (see Rapoport, S. I.), 129

FREEMAN, I. L. (see CHAO, C-C. W.), 411

Freeze-fracture demonstration of intracellular junctions in rabbit lens, 211

Freeze-fracture study of vesicle disruption and inversion in silated bovine rod outer segment disks, 501

FRITZ, C. (see KRUPIN, T.), 345

Frog lens membranes, contribution of an electrogenic pump to the electrical characteristics of, 105

Fu, S.-C. J., Wagner, B. J. and Su, S. W., Characterization of lens proteins. III. A group of labile rat lens proteins involved in cataracts, 455

Fucosylation of rabbit photoreceptor outer segments: properties of the labeled components, 231

Fujimori, E., pH-dependent photoreactions of blue-fluorescent calf α-crystallin, 649

Fukui, H. N. (see Kador, P. F.), 59

FUKUSHI, S. (see KADOR, P. F.), 59

Fundus, tapetal and pigmented, in the cat, retinal blood flow to, 245

Gamma-crystallin and β -crystallin families, an immunochemical study of the different proteins in, 519

Glucose transport in isolated mammalian pigment epithelium, 53

- uptake by normal and dystrophic rat retinas and ciliary bodies, 709

Glutathione, oxidized, in the corneal endothelium, 607

—, relation of intracellular levels and redox state of, to endothelial function in the rabbit cornea, 511

S-transferase of bovine lens, purification and properties of, 29

Glycoproteins, tear film, biosynthesis and partial characterization of; incorporation of radioactive precursors by human lacrimal gland explants in vitro, 411

Glycosaminoglycan metabolism of cultured cornea cells derived from bovine and human stroma and from bovine epithelium, 469

fibroblasts from human keratoconus corneas, studies on, 215

GOEL, S. C. (see Pal, J. K.), 739

GOLDSTEIN, G. W. (see Betz, A. L.), 593

GREEN, K. (see KELLY, G.), 641

GREINER, J. V., Histogenesis of the cat retina, 439

GRIMES, P. A. and LATIES, A. M., Early morphological alteration of the pigment epithelium in streptozotocin-induced diabetes: increased surface area of the basal cell membrane, 631

GRUNER, SOL M. (see BARRY, D. T.), 501

HARTMANN, C. H. G. (see HIRSCH, M), 253

HELLER, J. and JONES, P., Purification of bovine retinal pigment epithelial cells by dissocation in calcium free buffers and centrifugation in Ficoll density gradients followed by "recovery" in tissue culture, 481

(see Jones, P. G.), 489

Hexoses, potassium and natural amino acids, transport into capillaries isolated from bovine retina, 593 HIGHTOWER, K. R. and KINSEY, V. E., Transport and bioelectric properties of post-mortem lenses, 19 HILL, D. W. and HOUSEMAN, J., Retinal blood flow to tapetal and pigmented fundus in the cat, 245

HIRSCH, M., BELLON, B., HARTMANN, C. H. G., KELLER, N. and DRUET, P., Localization of autologous antiperoxidase antibodies in the anterior uvea of the rabbit eye, 253

Histochemical studies on the inferior oblique muscle of siamese cats and domestic cats with unilateral lid suture, 619

Histogenesis of the cat retina, 439

HOTTE, C. E. (see WILCOX, L. M.), 167

HOUSEMAN, J. (see HILL, D. W.), 245

Hudson, B. G. (see Peczon, B. D.), 155

Human and bovine stroma and bovine epithelium, glycosaminoglycan metabolism of cultured cornea cells derived from, 469

eyes, cataractous, changes in chemical composition of anterior lens capsules of, as a function of age, 155

keratoconus corneas, studies on the glycosaminoglycan metabolism of cultured fibroblasts from,

lacrimal gland explants in vitro, incorporation of radioactive precursors by; biosynthesis and partial characterization of tear film glycoproteins, 411

, stereological investigation on the effects of metaproterenol pilocarpine and atropine administration on, 291

lens fiber cell plasma membranes I. Isolation, polypeptide composition and changes associated with ageing, 659

main intrinsic protein (MIP), some properties of, and its enzymatic conversion into a 22000 dalton polypeptide. (Lens membranes XI), 305

-, microtubules: a major cytoskeletal component of, 611

-, proteolytic enzymes of, 427

Hypercapnia, reversible opening of the retinal pigment epithelium by, 129

IGIĆ, R. and KOJONIĆ, V., Angiotensin I converting enzyme (kinase II) in ocular tissues, 299 Immune complex deposition in the ciliary process of rabbits with acute and chronic serum sickness, 371

Immunochemical studies on lens protein-protein complexes II. On the mechanism of alpha-beta-gamma crystallin complex formation, 527

Immunochemical studies on lens protein-protein complexes III. Age-related changes in the stability of lens alpha crystallin containing complexes, 537

Immunochemical study of the different proteins in the beta and gamma crystallin families, 519

Immunoelectrophoretic and isofocusing studies of soluble eye lens proteins from regenerated and normally developed Xenopus laevis, 269

Intracellular junctions in rabbit lens, freeze-fracture demonstration of, 211

levels and redox state of glutathione, relation to endothelial function in the rabbit cornea, 511 Intraocular pressure and adrenergic drugs: suppression of ocular hypertension induced by water loading.

pressure response, biphasic, and the role of prostaglandins. (The pathophysiological effects of nitrogen mustard on the rabbit eye I), 41

Iris dilator muscle from rabbits with experimentally induced thyroid disorders, adrenergic responsiveness

ISHIBASHI, T., TANAKA, K. and TANIGUCHI, Y., Disruption of blood-retinal barrier in experimental diabetic rats: an electron microscopic study, 401

Isofocusing and immunoelectrophoretic studies of soluble eye lens proteins from regenerated and normally developed *Xenopus laevis*, 269

JERNIGAN, H. M., Jr. (see KADOR, P. F.), 1, 59

Johnson, J. E. (see Pascuzzo, G. J.), 53

Jones, P. G. and Heller, J., Specific binding of fluorescein labelled serum retinol-binding protein to its cell surface receptor in isolated, purified bovine pigment epithelial cells, 489

——— (see Heller, J.), 481

Junctions, intracellular, in rabbit lens, freeze-fracture demonstration of, 211

Kador, P. F., Fukui, H. N., Fukushi, S., Jernigan, H. M. Jr. and Kinoshita, J. H., Philly mouse: a new model of hereditary cataract, 59

—, —— Jernigan, H. M., Jr. and Kinoshita, J. H., Accumulation and incorporation of radiolabeled choline transport system, 1

—, — (see Piatigorsky, J.), 69

---- (see Uga, S.), 79

Kainic acid induces mitoses in mature retinal neurones in rats, 731

Keller, N., Moore, D., Carper, D. and Longwell, A., Increased corneal permeability induced by the dual effects of transient tear film acidification and exposure to benzalkonium, 203

KEOUGH, E. M. (see WILCOX, L. M.), 167

—, —— (see Hirsch, M.), 253

Kelly, G. and Green, K., Influence of bicarbonate and ${\rm CO_2}$ on rabbit corneal transendothelial bicarbonate fluxes, 641

 $Kerato conus \ corneas, human, studies \ on \ the \ gly cosaminogly can \ metabolism \ of \ cultured \ fibroblasts \ from, \\ 215$

Kininase II, angiotensin I converting enzyme, in ocular tissues, 299

Kinoshita, J. H. (see Kador, P. F.), 1, 59

—, —— (see Piatigorsky, J.), 69

KINSEY, V. E. (see HIGHTOWER, K. R.), 19

KNUUTTILA, K-G. (seeWistrand, P. J.), 277

Kojović, V. (see Igić, R.), 299

KRESSE, H. (see BLECKMANN, H.), 215, 469

KRUPIN, T., FRITZ, C., DUTTON, J. J. and BECKER, B., Δ^9 -Tetrahydrocannabinol transport in rabbit eyes, 345

Kuhlmann, E. D. (see Broekhuyse, R. M.), 305

KUWABARA, T. (see CARTER-DAWSON, L.), 261

—, — (see Uga, S.), 79

KYLES, C. B. (see REDBURN, D. A.), 699

Labile rat lens proteins involved in cataracts. (Characterization of lens proteins III), 455

Lacrimal gland, human, explants in vitro, incorporation of radioactive precursors by; biosynthesis and partial characterization of tear film glycoproteins, 411

———, ——, stereological investigation of the effects of metaproterenol pilocarpine and atropine administration on, 291

Lai, C. Y. (see Fu, S.-C. J.), 455

LATIES, A. M. (see GRIMES, P. A.), 631

—, —— (see Rapoport, S. I.), 129

Lavers, G. C., Influence of m⁷GpppN mRNA caps on lens protein synthesis and on mRNA binding to ribosomes in a homologous lens translation system derived from embryonic chick lens cells, 747

Lennerstrand, G., Histochemical studies on the inferior oblique muscle of Siamese cats and domestic cats with unilateral lid suture, 619

Lens, amphibian, the calcium metabolism of, 379

____, ____ zinc metabolism of, 333

—, adult chicken, β -crystallins of; relatedness of the polypeptides and their aggregates, 679

—— alpha crystallin containing complexes, age-related changes in the stability of. (Immunochemical studies on lens protein-protein complexes III), 537

, bovine, carbonic anhydrases: purification and properties, 277

_____, ____, glutathione S-transferase, purification and properties of, 29

_____, ____, urea-soluble protein, regional differences in the composition of, 109

capsules, anterior, of cataractous human eyes, changes in chemical composition of, as a function of age, 155
 cells, embryonic chick, influence of m⁷GpppN mRNA caps on lens protein synthesis and on mRNA

binding to ribosomes in a homologous lens translation system derived from 747

Lens (cont.)
—, cultured embryonic chick, anion and cation effects of δ -crystallin synthesis in, and in a reticulocy
lysate, 351

—, embryonic chick, two tryptic peptide differences among the subunits of σ -crystallin of, 361

- —, human, fiber cell plasma membranes I. Isolation, polypeptide composition and changes associated with ageing, 659
- ——, main intrinsic protein (MIP), some properties of, and its enzymatic conversion into a 22 000 dalton polypeptide. (Lens membranes XI), 305

----, ----, microtubules: a major cytoskeletal component of, 611

—, —, proteolytic enzymes of, 427

—, isolated toad, the influence of calcium-free media on the electrical properties of, 193

membranes, frog, contribution of an electrogenic pump to the electrical characteristics of, 105
 XI. Some properties of human lens main intrinsic protein (MIP) and its enzymatic conversion into a 22000 dalton polypeptide, 305

---- protein characterization III. A group of labile rat lens proteins in cataracts, 455

crystallin complex formation, 527

—————, immunochemical studies on, III. Age-related changes in the stability of lens alpha

crystallin containing complexes, 537

proteins, soluble, from regenerated and normally developed Xenopus laevis, isofocusing and immunoelectrophoretic studies of, 269
 , water soluble, of the lizard, Calotes versicolor, studies on, I. Fractionation and molecular weight

determination, 739

—, rabbit, freeze-fracture demonstration of intracellular junctions in, 211

Lenses, fish, pressure induced turbidity in, 315

----, post-mortem, transport and bioelectric properties of, 19

—, rabbit, cultured, accumulation and incorporation of radiolabeled choline into; evidence for a choline transport system, 1

Lessell, S., Craft, J. L. and Albert, D. M., Kainic acid induces mitoses in mature retinal neurones in rats, 731

Lid suture, unilateral, histochemical studies on the inferior oblique muscle of siamese cats and domestic cats with, 619

LIEBERMAN, M. (see NISSEN, P.), 691

Light-entrained tree squirrels, rod and cone disc shedding in, 545

LITWIN, J. A., Freeze-fracture demonstration of intracellular junctions in rabbit lens, 211

Lizard, Calotes versicolor, studies on the water soluble lens proteins of, I. Fractionation and molecular weight determination, 739

LOEWENSTEIN, M. A. and Bettelheim, F. A., Pressure induced turbidity in fish lenses, 315 Longwell, A. (see Keller, N.), 203

McNamara, M. K. and Augusteyn, R. C., 3,3'-dityrosine in the proteins of senile nuclear cataracts, 319

Main intrinsic protein (MIP) of human lens, some properties of, and its enzymatic conversion into a $22\,000$ dalton polypeptide. (Lens membranes XI), 305

Maisel, H. (see Alcala, J.), 659

_____, ____ (see Nasser, S.), 109

Malinowski, K. and Manski, W., An immunochemical study of the different proteins in the beta and gamma crystallin families, 519

——, ——, ——, Immunochemical studies on lens protein–protein complexes II. On the mechanism of alpha–beta–gamma crystallin complex formation, 527

of lens alpha crystallin containing complexes, 537

Mammalian pigment epithelium, isolated, glucose transport in, 53

Man, monkey, pig and calf, common antigenic determinants in the soluble retina fractions of. (Ocular antigens XI), 391

Manski, W. (see Malinowski, K.), 519, 527, 537

Marshall, J. (see Buyukmihci, N.), 575

 $\label{eq:Mathey} \mbox{Mathey}, \mbox{J.} \mbox{L.}, \mbox{Adrenergic responsiveness in vitro of iris dilator muscle from rabbits with experimentally induced thyroid disorders, 13}$

Melanin, ocular, interaction in vitro of drugs with, 325

Membrane, basal cell, increased surface area of; early morphological alteration of the pigment epithelium in streptozotocin-induced diabetes, 631

- Membranes, frog lens, contribution of an electrogenic pump to the electrical characteristics of, 105
- —, human lens fiber cell plasma, I. Isolation, polypeptide composition and changes associated with ageing, 659
- —, lens, XI. Some properties of human lens main intrinsic protein (MIP) and its enzymatic conversion into a 22 000 dalton polypeptide, 305
- Messenger RNA binding to ribosomes in a homologous lens translation system derived from embryonic chick lens cells, influence of m⁷GpppN mRNA caps on lens protein synthesis and on, 747

Metabolism, calcium, of the amphibian lens, 379

- ——, glycosaminoglycan, of cultured cornea cells derived from bovine and human stroma and from bovine epithelium, 469
- —, —, fibroblasts from human keratoconus corneas, studies on, 215

-, zinc, of the amphibian lens, 333

Metaproterenol pilocarpine and atropine administration, stereological investigation of their effects on the human lacrimal gland, 291

m⁷GpppN mRNA caps, influence on lens protein synthesis and on mRNA binding to ribosomes in a homologous lens translation system derived from embryonic chick lens cells, 747

Microtubules: a major cytoskeletal component of the human lens, 611

MIP (see main intrinsic protein), 305

Mitoses, induction by kainic acid in mature retinal neurones in rats, 731

Monkey, man, pig and calf, common antigenic determinants in the soluble retina fractions of. (Ocular antigens XI), 391

-, rhesus, retina, rod and cone disc shedding in; a quantitative study, 559

MOORE, D. (see Keller, N.), 203

Mouse, Philly, cataract, cytological study of, 79

-, -hereditary cataract, differential synthesis and degradation of protein in, 69

-, -: a new model of hereditary cataract, 59

Muscle, inferior oblique, of siamese cats and domestic cats with unilateral lid suture, histochemical studies on, 619

—, iris dilator, from rabbits with experimentally induced thyroid disorders, adrenergic responsiveness in vitro of, 13

NADH fluorescence in rat and rabbit ocular tissue; altered redox states in corneal epithelium and endothelium, 691

NASSER, S., BRADLEY, R., ALCALA, J. and Maisel, H., Regional differences in the composition of the bovine lens urea-soluble protein, 109

NERURKAR, A. R. (see Pal, J. K.), 739

Neurones, retinal, mature, in rats, kainic acid induces mitoses in, 731

NEVILLE, M. C. (see DUNCAN, G.), 105

NG, M. C. and RILEY, M. V., Relation of intracellular levels and redox state of glutathione to endothelial function in the rabbit cornea. 511

____, ___ (see RILEY, M. V.), 607

NISSEN, P., LIEBERMAN, M., FISCHBARG, J. and CHANCE, B., Altered redox states in corneal epithelium and endothelium: NADH fluorescence in rat and rabbit ocular tisue,

Nitrogen mustard, the pathophysiological effects on the rabbit eye. I. The biphasic intraocular pressure response and the role of prostaglandins, 41

Nuclear cataracts, senile, 3,3'-dityrosine in the proteins of, 319

Ocular antigens XI. Common antigenic determinants in the soluble retina fractions of man, monkey, pig and calf, 391

hypertension induced by water loading, suppression of; adrenergic drugs and intraocular pressure,

—— melanin, interaction in vitro of drugs with, 325

, and systematic mechanisms of anuran adaptation to altered environments: effects on electrolyte and urea concentrations in plasma and aqueous humor, 221

—— tissue, rat and rabbit, NADH fluorescence in; altered redox states in corneal epithelium and endothelium, 691

- tissues, angiotensin I converting enzyme (kinase II), in, 299

ORZALESI, N. (see DIAZ, G.), 291

OSTRER, H. and Piatigorsky, J., β -crystallins of the adult chicken lens: relatedness of the polypeptides and their aggregates, 679

Outer segment disks, bovine rod, freeze-fracture study of vesicle disruption and inversion in, 501

—— segments, photoreceptor, rabbit, fucosylation of; properties of the labeled components, 231 Oxidized glutathione in the corneal endothelium, 607

Oxygen transport in the bullfrog retina, 117

P substance levels in normal and sensorily denervated rabbit eyes, 311

PAL, J. K., NERURKAR, A. R. and GOEL, S. C., Studies on the water soluble lens proteins of the lizard, Calotes versicolor. I. Fractionation and molecular weight determination, 739

PASCUZZO, G. J., JOHNSON, J. E. and PAUTLER, E. L., Glucose transport in isolated mammalian pigment epithelium, 53

Paaterson, C. A. (see Duncan, G.), 105

Pathophysiological effects of nitrogen mustard on the rabbit eye. I. The biphasic intraocular pressure response and the role of prostaglandins, 41

Pautler, E. L. (see Pascuzzo, G. J.), 53

(see STRAMM, L. E.), 709

PECZON, B. D., PECZON, J. D., CINTRON, C. and HUDSON, B. G., Changes in chemical composition of anterior lens capsules of cataractous human eves as a function of age, 155

Peczon, J. D. (see Peczon, B. D.), 155

Peress, N. S., Immune complex deposition in the ciliary process of rabbits with acute and chronic serum sickness, 371

 $PGF_{2\alpha}$ accumulation by the rabbit anterior uvea, in vitro studies on the rate of. (The kinetics and energy dependence of prostaglandin transport processes I), 175

pH-dependent photoreactions of blue-fluorescent calf α-crystallin, 649

Phagocytosis, quantitative assay by retinal pigment epithelium; an organ culture model, 719

Philly mouse: a new model of hereditary cataract, 59

cataract, cytological study of, 79

-, hereditary, differential synthesis and degradation of protein in, 69

Photoreactions, pH-dependent, of blue-fluorescent calf α-crystallin, 649

Photoreceptor outer segments, rabbit, fucosylation of; properties of the labeled components, 231

Piatigorsky, J., Kador, P. F. and Kinoshita, J. H., Differential synthesis and degradation of protein in the hereditary philly mouse cataract, 69

- (see Ostrer, H.), 679

Piatigorsky, J. (see Shinohara, T.), 351, 361

Pig, calf, man and monkey, common antigenic determinants in the soluble retina fractions of. (Ocular antigens XI), 391

Pigment epithelial cells, bovine, isolated, purified, specific binding of fluorescein labelled serum retinol-binding protein to its cell surface receptor in, 489

-, retinal, bovine, purification by dissociation in calcium free buffers and centrifugation in Ficoll density gradients followed by "recovery" in tissue culture, 481

-, isolated mammalian, glucose transport in, 53

, retinal, degradation of rhodopsin by a lysosomal fraction of. (Biochemical aspects of the visual process XLI), 183

, retinal, quantitative assay of phagocytosis by; an organ culture model, 719

, —, reversible opening of, by hypercapnia, 129

in streptozotocin-induced diabetes, early morphological alteration of; increased surface area of the basal cell membrane, 631

Pigmented and tapetal fundus in the cat, retinal blood flow to, 245

Pigments, visual, and vitamins A in the adult bullfrog, 143

Plasma and aqueous humor, effects on electrolyte and urea concentrations in; systemic and ocular mechanisms of anuran adaptation to altered environments, 221

Post-mortem lenses, transport and bioelectric properties of, 19

Potassium, hexoses, and neutral amino acids, transport into capillaries isolated from bovine retina, 593 POTTER, D. E. (see ROWLAND, J. M.), 93

POWELL, D. (see BUTLER, J. M.), 311

Pressure induced turbidity in fish lenses, 315

intraocular, and adrenergic drugs: suppression of ocular hypertension induced by water loading.

, intraocular, biphasic, and the role of prostaglandins. (The pathophysiological effects of nitrogen mustard on the rabbit eye I), 41

Primate eye, the contribution of blood flow by the anterior ciliary arteries to the anterior segment in,

Prostaglandin transport processes, the kinetics and energy dependence of, I. In vitro studies on the rate of PGF_{2α} accumulation by the rabbit anterior uvea, 175

Prostaglandins, the biphasic intraocular pressure response and the role of. (The pathophysiological effects of nitrogen mustard on the rabbit eye I), 41

Protein, fluorescein labelled serum retinol-binding, specific binding to its cell surface receptor in isolated. purified bovine epithelial cells, 489

in the hereditary Philly mouse cataract, differential synthesis and degradation of, 69

Protein (cont.)

—, lens, synthesis, influence of m⁷GpppN mRNA caps on, and on mRNA binding to ribosomes in a homologous lens translation system derived from embryonic chick lens cells, 747

—, main intrinsic (MIP), human lens, some properties of, and its enzymatic conversion into a 22 000 dalton polypeptide. (Lens membranes XI). 305

----, urea-soluble, of bovine lens, regional differences in the composition of, 109

Proteins in the beta and gamma crystallin families, an immunochemical study of, 519

- —, eye lens, soluble, from regenerated and normally developed *Xenopus laevis*, isofocusing and immunoelectrophoretic studies of, 269
 - —, lens, characterization of, III. A group of labile rat lens proteins involved in cataracts, 455
- ——, water soluble, of the lizard, Calotes versicolor, studies on, I. Fractionation and molecular weight determination, 739
- of senile nuclear cataracts, 3,3'-dityrosine in, 319
- ———protein complexes, lens, immunochemical studies on, II. On the mechanism of alpha—beta—gamma crystallin complex formation, 527
- ————, ——, ———, III. Age-related changes in the stability of lens alpha crystallin containing complexes, 537

Proteolytic enzymes of the human lens, 427

 $Pump,\ electrogenic,\ contribution\ to\ the\ electrical\ characteristics\ of\ frog\ lens\ membranes,\ 105$

Rabbit anterior uvea, in vitro studies on the rate of $PGF_{2\alpha}$ accumulation by. (The kinetics and energy dependence of prostaglandin transport processes I), 175

- and bovine retina, localization and characterization of dopamine receptors within two synaptosome fractions of, 699
- cornea, relation of intracellular levels and redox state of glutathione to endothelial function in, 511
- —— corneal transendothelial bicarbonate fluxes, influence of bicarbonate and ${\rm CO_2}$ on, 641
- ---- eye, localization of autologous antiperoxidase antibodies in the anterior uvea of, 253
- ————, the pathophysiological effects of nitrogen mustard on, I. The biphasic intraocular pressure response and the role of prostaglandins, 41
- eyes, normal and sensorily denervated, substance P levels in, 311
- ----, Δ⁹-tetrahydrocannabinol transport in, 345
- ---- photoreceptor outer segments, fucosylation of; properties of the labeled components, 231
- lens, freeze-fracture demonstration of intracellular junctions in, 211
- ——lenses, cultured, accumulation and incorporation of radiolabeled choline into; evidence for a choline transport system, 1
- and rat ocular tissue, NADH fluorescence in; altered redox states in corneal epithelium and endothelium, 691
- Rabbits with acute and chronic serum sickness, immune complex deposition in the ciliary process of, 371
- with experimentally induced thyroid disorders, adrenergic responsiveness in vitro of iris dilator muscle from, 13

Radioactive precursors, incorporation by human lacrimal gland explants in vitro; biosynthesis and partial characterization of tear film glycoproteins, 411

 ${\bf Radiolabeled\ choline,\ accumulation\ and\ incorporation\ into\ cultured\ rabbit\ lenses;\ evidence\ for\ a\ choline\ transport\ system,\ 1}$

RANADIVE, N. S. (see ROSENSTOCK, T.), 719

RAPOPORT, S. I., FREDERICKS, W. R. and LATIES, A. M., Reversible opening of the retinal pigment epithelium by hypercapnia, 129

Rat lens proteins involved in cataracts. (Characterization of lens proteins III), 455

- and rabbit ocular tissue, NADH fluorescence in; altered redox states in corneal epithelium and endothelium, 691
- retina, identification of dopamine receptors in, 431
- retinas and ciliary bodies, normal and dystrophic, glucose uptake by, 709

Rats, diabetic, experimental, disruption of blood-retinal barrier in; an electron microscopic study, 401

- —, kainic acid induces mitoses in mature retinal neurones in, 731
- -, vitamin A deficient, early corneal changes in, 261

Redburn, D. A. and Kyles, C. B., Localization and characterization of dopamine receptors within two synaptosome fractions of rabbit and bovine retina, 699

Redox states, altered, in corneal epithelium and endothelium: NADH fluorescence in rat and rabbit ocular tissue, 691

—— state and intracellular levels of glutathione, relation to endothelial function in the rabbit cornea, 511

Regan, C. M., de Grip, W. J., Daemen, F. J. M. and Bonting, S. L., Degradation of rhodopsin by a lysosomal fraction of retinal pigment epithelium: biochemical aspects of the visual process, XLI, 183

RESZELBACH, R. (see SHINOHARA, T.), 361

Reticulocyte lysate, anion and cation effects on δ -crystallin synthesis in the cultured embryonic chick lens and in, 351

Retina, bovine, transport of hexoses, potassium and neutral amino acids into capillaries isolated from, 593

----, bullfrog, oxygen transport in, 117

-, cat, histogenesis of, 439

-, development in rod-cone dysplasia. (Retinal degenerations in the dog II), 575

—— fractions, soluble, of man, monkey, pig and calf, common antigenic determinants in. (Ocular antigens XI), 391

—, rabbit and bovine, localization and characterization of dopamine receptors within two synaptosome fractions of. 699

—, rat, identification of dopamine receptors in, 431

—, rhesus monkey, rod and cone disc shedding in; a quantitative study, 559

Retinas, rat, and ciliary bodies, normal and dystrophic, glycose uptake by, 709

Retinal blood flow to tapetal and pigmented fundus in the cat, 245

—— degenerations in the dog II. Development of the retina in rod-cone dysplasia, 575

---- neurones, mature, in rats, kainic acid induces mitoses in, 731

— pigments epithelial cells, bovine, purification by dissociation in calcium free buffers and centrifugation in Ficoll density gradients followed by "recovery" in tissue culture, 481

———, quantitative assay of phagocytosis by; an organ culture model, 719

----, reversible opening of, by hypercapnia, 129

—— -blood barrier disruption in experimental diabetic rats: an electron microscopic study, 401

Retinol-binding protein, fluorescein labelled serum, specific binding to its cell surface receptor in isolated, purified bovine pigment epithelial cells, 489

Rhesus monkey retina, rod and cone disc shedding in; a quantitative study, 559

Rhodopsin degradation by a lysosomal fraction of retinal pigment epithelium. (Biochemical aspects of the visual process XLI), 183

Ribosomes in a homologous lens translation system derived from embryonic chick lens cells, influence of m⁷GpppN mRNA caps on lens protein synthesis and on mRNA binding to, 747

RILEY, M. V., NG, M. C., YATES, E. M., SOPPET, D. R. and WHIKEHART, D. R., Oxidized glutathione in the corneal endothelium, 607

—, —— (see Ng, M. C.), 511

RIVA, F. T. (see DIAZ, G.), 291

Rod and cone disc shedding in light-entrained tree squirrels, 545

---- the rhesus monkey retina: a quantitative study, 559

outer segment disks, bovine, freeze-fracture study of vesicle disruption and inversion in, 501
 -cone dysplasia, development of the retina in. (Retinal degenerations in the dog II), 575

ROGERS, K. M. and AUGUSTEYN, R. C., Proteolytic enzymes of the human lens, 427

Rosenstock, T., Basu, R., Basu, P. K. and Ranadive, N. S., Quantitative assay of phagocytosis by retinal pigment epithelium: an organ culture model, 719

ROWLAND, J. M. and POTTER, D. E., Adrenergic drugs and intraocular pressure: suppression of ocular hypertension induced by water loading, 93

Saari, J. C. and Bunt, A. H., Fucosylation of rabbit photoreceptor outer segments: properties of the labeled components, 231

SANETO, R. P. (see AWASTHI, Y. C.), 29

Schaeffer, J. M., Identification of dopamine receptors in the rat retina, 431

Senile nuclear cataracts, 3,3'-dityrosine in the proteins of, 319

Serum sickness, acute and chronic, immune complex deposition in the ciliary process of rabbits with, 371

Shinohara, T. and Piatigorsky, J., Anion and cation effects on δ -crystallin synthesis in the cultured embryonic chick lens and in a reticulocyte lysate, 351

—, —, Reszelbach, R. and Piatigorsky, J., Two tryptic peptide differences among the subunits of δ -crystallin of the embryonic chick lens, 361

SHYNE, S. E. (see FARNSWORTH, P. N.), 611

Siamese cats and domestic cats with unilateral lid suture, histochemical studies on the inferior oblique muscle of, 619

SOPPET, D. R. (see RILEY, M. V.), 607

Spector, A. (see Farnsworth, P. N.), 611

Squirrels, tree, light-entrained, rod and cone disc shedding in, 545

SRIVASTAVA, S. K. (see AWASTHI, Y. C.), 29

STEPIEN, K. (see ATLASIK, B.), 325

Stereological investigation on the effects of metaproterenol pilocarpine and atropine administration on the human lacrimal gland, 291

STRAMM, L. E. and Pautler, E. L., Glucose uptake by normal and dystrophic rat retinas and ciliary bodies, 709

Streptozotocin-induced diabetes, early morphological alteration of the pigment epithelium in; increased surface area of the basal cell membrane, 631

Stroma, bovine and human, and bovine epithelium, glycosaminoglycan metabolism of cultured cornea cells derived from, 469

Su, S. W. (see Fu, S.-C. J.), 455

Synaptosome fractions, two, of rabbit and bovine retina, localization and characterization of dopamine receptors within, 699

Systemic and ocular mechanisms of anuran adaptation to altered environments: effects on electrolyte and urea concentrations in plasma and aqueous humor, 21

Tabor, G. A., Fisher, S. K. and Anderson, D. H., Rod and cone disc shedding in light-entrained tree squirrels, 545

----, ---- (see Anderson, D. H.), 559

TANAKA, K. (see Ishibashi, T.), 401

, — (see Carter-Dawson, L.), 261

Taniguchi, Y. (see Ishibashi, T.), 401

Tapetal and pigmented fundus in the cat, retinal blood flow to, 245

Tear film acidification and exposure to benzalkonium chloride, increased corneal permeability induced by the dual effects of, 203

Δ⁹-Tetrahydrocannabinol transport in rabbit eyes, 345

Thyroid disorders, experimentally induced, adrenergic responsiveness in vitro of iris dilator muscle from rabbits with, 13

Tissue, ocular, rat and rabbit, NADH fluorescence in; altered redox state in corneal epithelium and endothelium, 691

Tissues, ocular, angiotensin I converting enzyme (kinase II) in, 299

Toad lens, isolated, the influence of calcium-free media on the electrical properties of, 193

TOLHUIZEN, E. F. J. (see BRINKMAN, C. J. J.), 391

Transendothelial bicarbonate fluxes, rabbit corneal, influence of bicarbonate and CO2 on, 641

Transport and bioelectric properties of post-mortem lenses, 19

--- of glucose in isolated mammalian pigment epithelium, 53

—— of hexoses, potassium and neutral amino acids into capillaries isolated from bovine retina, 593

— of oxygen in the bullfrog retina, 117

—— processes, prostaglandin, the kinetics and energy dependence of, I. In vitro studies on the rate of $PGF_{2\alpha}$ accumulation by the rabbit anterior uvea, 175

—— system, choline, evidence for; accumulation and incorporation of radiolabeled choline into cultured rabbit lenses, 1

— of Δ⁹-tetrahydrocannabinol transport in rabbit eyes, 345

Tryptic peptide differences, two, among the subunits of δ-crystallin of the embryonic chick lens, 361

TSIN, A. T. C. and Beatty, D. D., Visual pigments and vitamins A in the adult bullfrog, 143

Turbidity, pressure induced, in fish lenses, 315

UGA, S., KADOR, P. F. and KUWABARA, T., Cytological study of Philly mouse cataract, 79

UNGER, W. G. (see BUTLER, J. M.), 311

Urea and electrolyte concentrations in plasma and aqueous humor, effects on; systemic and ocular mechanisms of anuran adaptation to altered environments, 221

Uvea, anterior, rabbit, in vitro studies on the rate of ${\rm PGF}_{2\alpha}$ accumulation by. (The kinetics and energy dependence of prostaglandin transport processes I), 175

—, —, of the rabbit eye, localization of autologous antiperoxidase antibodies in, 253

Valentine, J. (see Alcalá, J.), 659

VERGNES, J-P. (see Chao, C-C. W.), 411

Vesicle disruption and inversion in isolated bovine rod outer segment disks, freeze-fracture study of, 501 Visual pigments and vitamins A in the adult bullfrog, 143

Visual pigments (cont.)

— process, biochemical aspects of, XLI. Degradation of rhodopsin by a lysosomal fraction of retinal pigment epithelium, 183

Vitamin A deficient rate, early corneal changes in, 261

Vitamins A and visual pigments in the adult bullfrog, 143

WAGNER, B. J. (see Fu, S.-C. J.), 455

Water loading, suppression of ocular hypertension induced by; adrenergic drugs and intraocular pressure, 93

——soluble lens proteins of the lizard, Calotes versicolor, studies on, I. Fractionation and molecular weight determination, 739

WEIDMAN, T. A. (see GREINER, J. V.), 439

WEITER, J. J. (see Zuckerman, R.), 117

WHIKEHART, D. R. (see RILEY, M. V.), 607

WILCOX, L. M., KEUGH, E. M., CONNOLLY, R. J. and HOTTE, C. E., The contribution of blood flow by the anterior segment in the primate eye, 167

WILCZOK, T. (see ATLASIK, B.), 325

WISTRAND, P. J. and KNUUTTILA, K-G., Bovine lens carbonic anhydrases: purification and properties, 277

 $Xenopus\ laevis$, regenerated and normally developed, isofocusing and immunoelectrophoretic studies of soluble eye lens proteins from, 269

YATES, E. M. (see RILEY, M. V.), 607

Zinc metabolism of the amphibian lens, 333

Zuckerman, R. and Weiter, J. J., Oxygen transport in the bullfrog retina, 117